

## MISSILE DEFENSE IN SPACE STUDIED

**Expert Says New Project  
for Advanced Devices Is  
Seriously Considered**

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WASHINGTON, May 30 — Even as the Administration wrestles with a decision on deployment of the Nike-X anti-missile system to defend the United States, some quite different, more advanced missile killers are being studied.

This was disclosed by a former top Pentagon research scientist in Congressional testimony just released.

Dr. Charles M. Herzfeld, who until last Friday was director of the Pentagon's Advanced Research Projects Agency, told the House Military Appropriations subcommittee that advanced systems based in space rather than on land were being given serious attention.

### Costs Have Gone Down

Dr. Herzfeld reminded the committee that the Defense Department had until 1964 worked on the so-called Bambi system designed to use satellites to locate and destroy enemy missiles shortly after they had been launched, while they were moving slowly and were easiest to intercept.

This work was stopped three years ago, he said, because it was "much too costly."

"We think the time is getting ripe again," he said, "to look at the whole question because

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the costs of putting things in orbit have gone down dramatically, the reliability of space engineering has gone up dramatically so that the overall cost of the system ought to come down significantly."

Dr. Herzfeld left his Government post to take an executive position with International Telephone and Telegraph Company. He testified on the missile defense system in late March.

Other Pentagon sources scotched the notion that the Bambi program was about to be resurrected, but they said studies were under way to look into the feasibility of space-based systems that might intercept enemy missiles either right after launching, during the boost phase or later in mid-course, while they arch through space thousands of miles from their targets.

Such systems, they said, would not violate the recently agreed-on ban on weapons of mass destruction in space since they would be entirely defensive, designed only to intercept offensive weapons.

The sources made clear that these studies were still preliminary and that they were not thought of as alternatives to Nike-X. Rather, they said, such systems might supplement Nike-X by "winnowing out" a lot of intercontinental ballistic missiles before they come within the range of Nike's Spartan or Sprint missiles.

"One of the reasons the launch-phase and mid-course intercept concepts fell down in the past is that they were

supposed to do the whole job," one technical expert said. "For that mission they didn't look too promising. But in combination with Nike-X, they look a lot more appealing."

The space-based system could knock down a large number of missiles, he said, leaving the "leakage" for Nike-X to handle.

"This would make Nike's job much more manageable," he noted.

The Nike-X antimissile system works this way:

Long-range radar searches out incoming missiles, which are attacked several hundred miles from the target by Spartan missiles.

The intercontinental ballistic missiles that get past the Spartans are then attacked close to the target by high-acceleration Sprint missiles.

Some high Defense Department officials said chances were increasing that the Administration would decide to deploy a limited Nike-X system.

"The only real question in my mind," said one official, "is not whether but when."

Sources said talks with the Soviet Union on possible limitations of defensive and offensive strategic systems were not making much progress but would continue for awhile.

The next "decision point" on Nike-X will come during the period September through November when top defense officials are working out the next military budget to go to Congress in January, they said.

In the current military budget, the Administration asked for \$377-million in standby funds to enable a start on Nike-X deployment in the fiscal year ending next June 30, it was pointed out. The Defense Department must make a deployment decision during the next budget cycle, however, so that it knows how much to request in the budget in the fiscal year 1969, starting July 1, 1968.